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EXAMINER

DENNISON, JERRY B

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/510,108	<b>Applicant(s)</b> NORRGARD ET AL.	
	<b>Examiner</b> JERRY DENNISON	<b>Art Unit</b> 2443	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 14, 15, 18, 20-23, 25 and 27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14, 15, 18, 20-23, 25 and 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **RESPONSE TO AMENDMENT**

1. This Action is in response to the Amendment for Application Number 10/510,108 received on 10/29/2008.
2. Claims 14-15, 18, 20-23, 25, and 27 are presented for examination.

### ***Response to Arguments***

3. Applicant's arguments and amendments filed on 10/29/2008 have been carefully considered but they are not deemed fully persuasive.

In response to Applicant's remarks regarding the objection to the Specification for lack of antecedent basis for "computer readable storage medium," Examiner notes that this terminology is still non-existent within Applicant's Specification, and it is indeterminable as to the subject matter that this language covers. Applicant attempts to justify the language by showing that the Specification recites a "computer usable medium." However, this does not properly define "computer readable storage medium", nor does it distinguish between statutory and non-statutory subject matter.

In response to Applicant's remarks regarding the 101 rejections, Examiner notes that the 101 rejections for claims 22-23 and 25 are respectfully maintained. Applicant has amended claim 22 to include the limitation, "wherein the resource manager is implemented by a computer program product stored on a computer readable storage medium." This limitation appears to be a limitation of intended use because the claim recites that the resource manager is implemented by a product, but does not recite that the resource is the product or that it is executing on a product. The limitation recites that the product is stored on the computer readable storage medium, and not the

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resource manager. As such, the claim still appears to be focused only on software.

The same applies for claim 25 in which the claim recites the limitation, "wherein said resource manager is implemented within a router or a server."

Applicant asserts, "In CLARK et al., there is no map of available physical resources, and the map disclosed in CLARK et al. is not created by a topology-aware resource manager. The resources of CLARK et al. are not bandwidth resources as in the present invention. Instead, the resources in CLARK et al. refer to switch/router/interface etc" [Response, page 11].

Examiner respectfully disagrees.

As shown in the previous rejection, the Clark reference clearly disclosed using IP and NetBIOS address information "to create an IP-centric map of the network" (Clark, col. 5, lines 1-5). As Applicant points out, the resources of Clark include switch/router/interface etc, which are clearly physical resources. As explicitly shown in the rejection, Clark disclosed a console or management station that creates this map. For further clarification, Clark disclosed "The inventive correlation technique allows the SNMP console to manage relationships between resources for purposes of activating/deactivating the resources and monitoring (Clark, col. 5, lines 14-20). Therefore Clark clearly disclosed a resource manager as claimed.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "bandwidth resources") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are

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not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

As explained in the last rejection, Examiner notes that there is absolutely no explicit definition of the term “resources” in Applicant’s Specification. Therefore, the Examiner has interpreted “resource” by its plain meaning as if the term was interpreted by one of ordinary skill in the art, to include anything considered to be a resource whether hardware, software, services etc. See MPEP § 2111.01.

Applicant argues, “The SNMP in CLARK et al. is not used for analyzing bandwidth limitations along paths between different end points” [Response, page 11].

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., “analyzing bandwidth limitations along paths between different ports”) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant argues that “CLARK et al. do not map available physical resources, it instead maps nodes” [Response, page 11]. Applicant asserts, “In the present Application, physical resources is defined, for example, in ¶¶ 0015 and 0016 of the Specification as published. The Office’s interpretation of “resource” would further require that Clark discuss not mapping unavailable physical resource, which it clearly does not” (Examiner would like to point out that Applicant has failed to consider

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Examiner's remarks cited in the last Office Action in response to this same argument.

For convenience of the Applicant, the Examiner provides the following remarks again).

Examiner respectfully disagrees.

Examiner submits that there is absolutely no explicit definition of the term “physical resources” in ¶ 0015 and 0016 of the Specification as published, or in any other section of Applicant's Specification. Therefore, the Examiner has interpreted “physical resource” by its plain meaning as if the term was interpreted by one of ordinary skill in the art, to include anything considered to be a resource whether hardware, software, services etc. See MPEP § 2111.01.

Applicant has not provided any reasoning for why the interpretation of “resource” would “further require that Clark discuss not mapping unavailable physical resource”. In any event, Examiner submits that there is no reason to map unavailable physical resources, as they are “unavailable”. While the cited references do not negate the possibility of “not mapping unavailable resources”, Examiner submits that there is no need for such since the entire point is to find the available resources, i.e. the resources that are currently part of the network.

Applicant further asserts, “resource information in the present claims are not just the physical nodes but other attributes within the network” [see Response, page 7].

Examiner respectfully disagrees.

Again, Examiner submits that Applicant has not provided an explicit definition of what the resources are or what they must include. The use of the term “resource” may include a multiplicity of different types, such hardware, software, services, etc. but the

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term is not tied to any specific type, and Applicant's specification does not provide an explicit definition of what the term includes. Therefore, the Examiner has interpreted "resource information" by its plain meaning as if the term was interpreted by one of ordinary skill in the art. See MPEP § 2111.01.

Therefore, the rejections are respectfully maintained.

It is the Examiner's position that Applicant has not yet submitted claims drawn to limitations, which define the operation and apparatus of Applicant's disclosed invention in manner, which distinguishes over the prior art.

Failure for Applicant to significantly narrow definition/scope of the claims and supply arguments commensurate in scope with the claims implies the Applicant intends broad interpretation be given to the claims. The Examiner has interpreted the claims with scope parallel to the Applicant in the response and reiterates the need for the Applicant to more clearly and distinctly define the claimed invention.

### ***Specification***

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

5. Claims 14-15, 18, 20-23, 25 and 27 include a "computer readable storage medium". Applicant's Specification does not provide the proper antecedent basis for this terminology in the claims, and it is therefore impossible to determine what subject matter this language covers, in terms of statutory and non-statutory subject matter.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 22-23 and 25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

7. Claim 22 includes a "Resource Manager comprising "means for" limitation(s) which may be implemented in software. The "means for" limitation specifically points to element 502 of Figure 5. As explained on page 8, line 5, "Figure 5 shows a resource manager in accordance with the present invention. Applicant's Specification provides evidence that Applicant intends for the Resource Manager to be implemented in software (page 3, lines 25-28) by stating that the resource manager may be implemented within a server or router. As such, the resource manager itself is not the server or router, but only software within these devices (i.e. computer program).

Applicant has amended claim 22 to include the limitation, "wherein the resource manager is implemented by a computer program product stored on a computer readable storage medium." This limitation appears to be a limitation of intended use because the claim recites that the resource manager is implemented by a product, but does not recite that the resource is the product or that it is executing on a product. The limitation recites that the product is stored on the computer readable storage medium, and not the resource manager. As such, the claim still appears to be focused only on software. The same applies for claim 25 in which the claim recites the limitation, "wherein said resource manager is implemented within a router or a server."



Computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs are not physical "things". They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

M.P.E.P. 2601.1 Section I states, "Since a computer program is merely a set of instructions capable of being executed by a computer, the computer program itself is not a process and USPTO personnel should treat a claim for a computer program, without the computer-readable medium needed to realize the computer program's functionality, as nonstatutory functional descriptive material."

Claims 22-23, and 25 do not provide the computer-readable medium needed to realize the program's functionality. As such, claims 22-26 are not limited to statutory subject matter and are therefore non-statutory.

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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9. Claims 14-15, 20-21, and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al (US 6131117) in view of Diebboll et al (US 5886643).

10. Regarding claims 14, 20, and 22, Clark disclosed a method, resource manager, (Clark, Abstract, console or management station; col. 4, lines 40-45, “application tool”; see also col. 7, lines 45-50) and computer program (Clark, col. 4, lines 40-45, “application tool”) for creating a map of available physical resources on an interface level within an Internet Protocol (IP) network, (Clark, Abstract, “IP map of the network” with respect to the resources; see also, col. 5, lines 8-10) performing the steps of:

combining (303) a topology map of said IP network with resource information that comprises information about identities of IP addresses and quantity of IP addresses (Clark, col. 5, lines 8-10);

the mapping being performed by a resource manager collecting information from network elements by using Simple Network Management Protocol (SNMP) (Clark, col. 4, lines 43-55; Clark disclosed the application tool being an SNMP tool executing at the console, clearly using SNMP to collect resource information);

wherein the method is implemented by a computer program product stored on a computer readable storage medium (Clark, col. 4, lines 40-42, “console workstation”)

Clark did not explicitly state performing (304) a mapping between said logical addresses and a physical interface within said IP network.

Diebboll discloses performing a mapping between said logical addresses and a physical interface within said IP network in a network topology method by determining

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which addresses map to certain nodes using an address table which indicates which addresses have been associated with a given MAC address (Dieboll, col. 11, lines 1-10).

One of ordinary skill in the art would have been motivated to combine the teachings of Clark and Dieboll since both relate to network topology methods and as such, both are within the same environment.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the node mapping functionality of Dieboll into the teachings of Clark in order to obtain the predictable result of improving Clark's topology functionality by providing a mapping of the network with more information about each node.

11. Regarding claims 15 and 23, Clark and Dieboll disclosed the limitations as described in claims 14 and 22, including wherein the topology map is obtained by a topology aware resource manager. (Clark, Col 4, lines 41-41, and 46-51)

12. Regarding claim 21, Clark and Dieboll disclosed the limitations as described in claims 14, including a computer program product stored on a computer usable medium, comprising readable program for causing a processing means within an IP network to control the execution of the steps of claim 14. (Claim 21, lines 66 “application tool”, and Col 5, lines 65 and Col 6 lines 1-8 discloses the memory and software processes.)

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13. Claims 18 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark in view of Diebboll and further in view of Takashima (US patent 6985960).

14. Regarding claims 18 and 25 Clark disclosed the limitations as described in claims 14 and 22.

Clark did not explicitly state wherein said resource manager is implemented within a router or a server.

Takashima disclosed a routing information mapping device in a network in which, for example a server maps out the route link information with device identifiers (Takashima, col. 9, lines 54-67).

While Clark disclosed a host device performing the mapping of nodes, Takashima explicitly shows a server performing such functionality. As such, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the functionality of Clark and Diebboll into a server, such as the server disclosed in Takashima in order to obtain the predictable result of providing efficient management of an integrated computer network of resources from a single device, thereby improving network mapping functionality.

15. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clark in view of Diebboll and further in view of Germain et al. (US 6,900,822).

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16. Regarding claim 27, Clark and Diebboll disclosed the limitations as described in claim 14. Diebboll further disclosed generating reports about network activity between the nodes of the network (Diebboll, col. 2, lines 25-35) and generating a view of the network from the monitored data collected from network probes which monitored traffic over the network (col. 2, lines 60-65), the view containing information about the nodes as well as a measure of traffic between the nodes (Diebboll, col. 3, lines 1-5).

However, Clark and Diebboll did not explicitly state wherein the resource information further comprises bandwidth information of the physical interface.

In an analogous art, Germain disclosed creating visualization maps of a communication network in which metrics are mapped over nodes on a topology map (Germain, col. 4, lines 20-27), the metrics including “input and output throughput of device interfaces” (Germain, col. 4, lines 1-5).

Like Clark and Diebboll, Germain provides for visualization of a network topology and as such, one of ordinary skill in the art would have been motivated to combine their teachings since they are within the same environment.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the viewing of metrics, such as bandwidth, for each device of the topology in order to provide more information to users and administrators viewing the network topology to thereby provide for improvements in analyzing performance and flow across the network (Germain, col. 1, lines 25-30).

### ***Conclusion***

**Examiner's Note:** Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Bret Dennison whose telephone number is (571) 272-3910. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia Dollinger can be reached on (571) 272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/J. Bret Dennison/  
Examiner, Art Unit 2443